

REMARKS

Reconsideration of the application is requested in view of the modifications above and the remarks below. Claims 10-18 are pending. Claims 10, 11 and 13-17 have been rejected and Claims 12 and 18 are objected to. Applicants acknowledge the indication of allowable subject matter of Claims 12 and 18.

Objection to the Specification

The Office Action objects to the disclosure the term "6-methoxypyrimidine" in Example 8, line 30, page 8. In view of the comments in the outstanding Office Action, "6-methoxypyrimidine" has been amended to be "6-hydroxypyrimidine." Reconsideration is requested.

Rejection under 35 USC 102 or 35 USC 103

The Office Action rejects Claims 10, 11 and 13-17 as anticipated by Bowen or in the alternative under 35 USC 103(a) as obvious over Bowen. The rejection should be withdrawn in view of the remarks below.

It is well-established law that the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted)

It is also well-established law that "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows

from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original)

Applicants invention is related to a process for preparing 4,6-dichloropyrimidine comprising reacting 4-chloro-6-hydroxypyrimidine with an acid chloride

The Office Action alleges that Bowen teaches the reaction of 4,6-dihydroxypyrimidine with phosgene to yield 4,6-dichloropyrimidine and inherent in Bowen is the use of 4-chloro-6-hydroxypyrimidine as a starting material (Office Action, page 3, lines 12-15). Further, the Office Action alleges that the 4-chloro-6-hydroxypyrimidine starting material is a necessary intermediate in the process taught in the prior art, and thus is inherently present in the mixture of Bowen (Office Action, page 4, lines 4-14).

The Examiner's proposed reaction scheme (see Office Action, page 4, lines 4-14), including the statement that "the 4-chloro-6-hydroxypyrimidine starting material is a necessary intermediate" is not inherent in Bowen. In point of fact, in the proposed reaction scheme described by the Examiner, there are many alternative possibilities occurring via intermolecular carbonates, such as simultaneous dichlorination in a solvent cage, etc. In fact, Bowen in Example 1, teaches away from the Examiner's allegation because after workup only the starting material dihydroxypyrimidine and the product 4,6-dichloropyrimidine is present in the resulting product, thus there is no intermediate 4-chloro-6-hydroxypyrimidine. Thus, the allegedly inherent characteristic does not necessarily flows from the teachings of Bowen. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. Further, the Examiner's proposed reaction scheme relies on his own scientific knowledge. However, when an examiner relies on a scientific theory, evidentiary support for the existence and meaning of that theory must be provided. *In re Grose*, 592 F.2d 1161, 201 USPQ 57 (CCPA). The Examiner has not provided evidentiary support and Applicants invite him to provide that information at his earliest convenience. Accordingly, reconsideration of the inherency rejection is requested.

Now turning to the four arguments addressed in the Office Action (beginning at page 6). Regarding why Bowen would choose 4,6-dihydroxypyrimidine as a

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- 4 -

starting material rather than choose Applicants' 4-chloro-6-hydroxypyrimidine as a starting material (Office Action, page 6, lines 3-13). Applicants submit as follows. The Office Action contends that commercial availability and cost (an offering of 4,6-dihydroxypyrimidine for sale at \$7/gram and no offer to sell 4-chloro-6-hydroxypyrimidine in a catalog) indicate support of Bowen having elected to use a readily available and lower costing starting material, rather than Applicants' 4-chloro-6-hydroxypyrimidine. However, such catalog advertising does not provide facts and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of Bowen.

Regarding the admission by the Office Action that "the prior art repeatedly emphasizes the importance of a base and contains no examples of any reaction lacking a base" (Office Action, page 7, lines 6-7), Applicants submit as follows. The Office Action alleges that "Applicants' claims use the open term 'comprising.' Thus, processes with additional reagents anticipate Applicants' claims. ...omitting an ingredient is an obvious modification of a chemical process" (Office Action, page 7, lines 7-11).

Applicants' invention is related to a process for preparing 4,6-dichloropyrimidine comprising reaction 4-chloro-6-hydroxypyrimidine with an acid chloride.

Bowen does not teach or suggest all of the limitations of Applicants' claims. In particular, Bowen does not teach or suggest an acid chloride. Applicants' invention includes acid chlorides that are active on their own and no addition of catalysts are necessary, such as amides (for example diethylformamide), amines or organic phosphorus compounds (Specification, page 2, lines 6-8). Such information evidences the advantages of Applicants' invention over Bowen, and nowhere in Bowen is such taught or suggested. With this omission, Bowden does not anticipate or obviate Applicants' invention. Reconsideration is requested.

Regarding the statement by the Office Action that "assertion is not evidence" and that the Examiner agrees that case law require inherency must be certain, and Applicants may prove that the prior art does not posses the inherent characteristics (Office Action, page 7, 12-15), Applicants submit as follows. As discussed, other possibilities in Bowen may be occurring via intermolecular carbonates, e.g.,

simultaneous dichlorination in a solvent cage, etc., and further Bowden's Example 1 teaches away from Applicants' claimed invention. Thus, Bowen does not inherently disclose Applicants' invention.

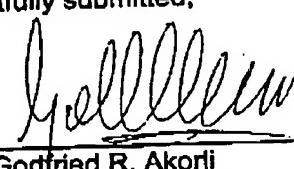
Regarding the statement in the Office Action that external evidence is not required to make an inherency rejection (Office Action, page 8, lines 8-9). To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). The Office Action does not establish that 4-chloro-6-hydroxypyrimidine is necessarily present. Therefore, Bowen does not inherently disclose Applicants' invention.

Regarding Claims 11 and 13-17, Claims 13-17 depend from Claim 10 which as discussed is believed to be allowable. Accordingly, Claims 11 and 13-17 are also believed to be allowable.

In view of the foregoing, Applicants submit that the Examiner is justified in allowing all the claims in the application.

Respectfully submitted,

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- 6 -